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January 14, 2010

57739-000020

Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

Re: *Comment Sought On Spectrum for Broadband; NBP Public Notice # 6*, GN Docket Nos. 09-47, 09-51 and 09-137; *AWS-2*, WT Docket No. 04-356; *AWS-3*, WT Docket No. 07-195; *700 MHz Service Rules*, WT Docket No. 06-150

Dear Ms. Dortch:

On January 13, 2010, Mark A. Stachiw of MetroPCS Communications, Inc. ("MetroPCS"), along with Michael Lazarus of Paul, Hastings, Janofsky & Walker LLP ("Paul Hastings"), and Barbara Baffer and Hossam H'Mimy of Ericsson Inc. ("Ericsson"), participated in a meeting with Julius Knapp and Alan Stillwell of the Office of Engineering and Technology regarding the above-referenced proceedings. The oral presentation in the meeting was consistent with the attached written presentation, copies of which were distributed in the meeting, as well as with the pleadings and *ex partes* filed on behalf of MetroPCS in the above-referenced proceedings.

In particular, MetroPCS and Ericsson discussed the various international bands, the speeds possible with various bandwidths under long term evolution ("LTE"), the factors that would affect the average speeds of a network and the ability of wireless carriers and manufacturers to implement LTE services at broadband speeds on bandwidths as narrow as 1.4 MHz. MetroPCS and Ericsson also discussed the ability of wireless carriers to aggregate spectrum across numerous spectrum bands in order to provide LTE wireless broadband services.

Kindly refer any questions in connection with this letter to the undersigned.

Respectfully submitted,

/s/ Michael Lazarus

Michael Lazarus
of PAUL, HASTINGS, JANOFSKY & WALKER LLP

cc: (via email) Julius Knapp
Alan Stillwell

LTE TECHNOLOGY CAPABILITIES

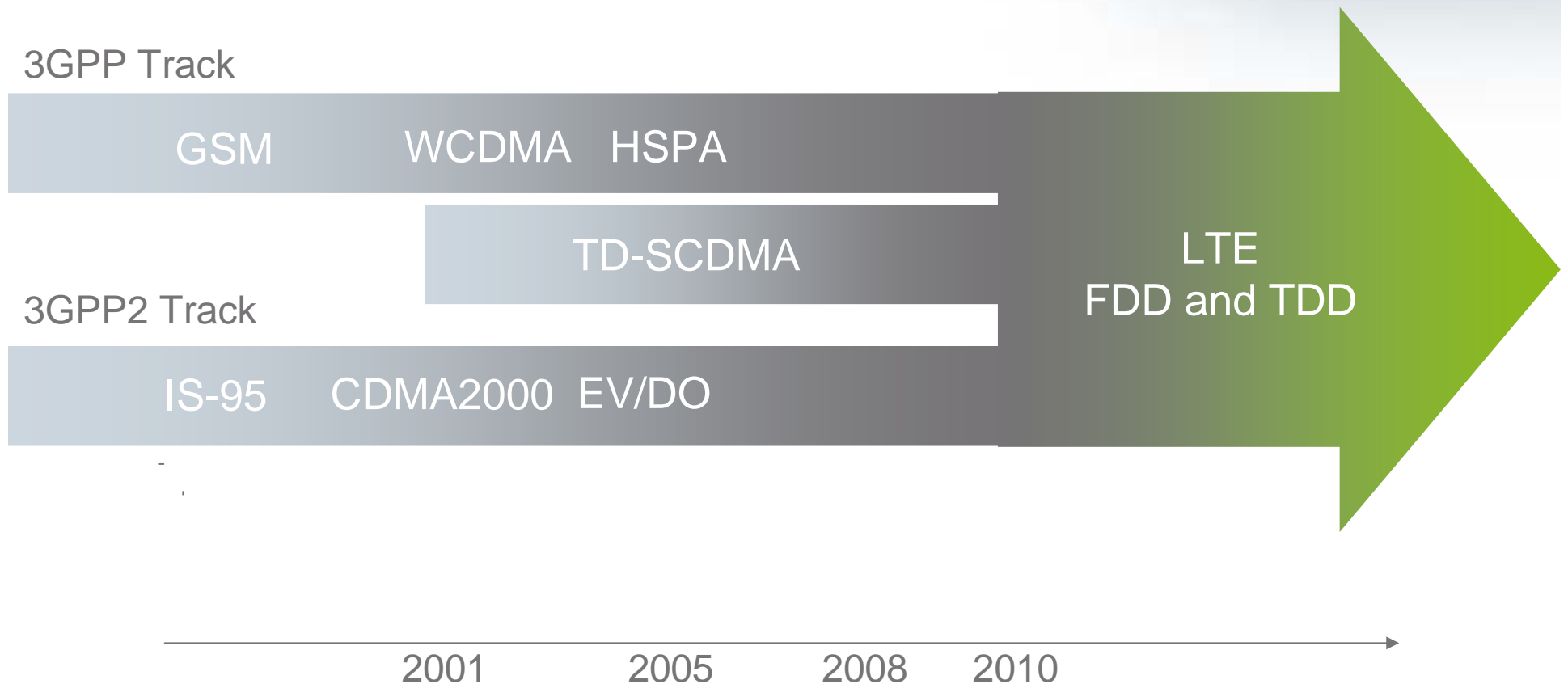
HOSSAM H'MIMY, Ph.D.
HEAD OF BB NETWORK & TECHNOLOGY STRATEGY
ERICSSON INC.

JANUARY 13, 2010



COMMON LTE EVOLUTION

ALIGNMENT FOR WCDMA/HSPA,
TD-SCDMA (CHINA) AND CDMA



LTE the Global standard for Next Generation

CURRENT 3GPP BANDS

FDD		
Band	"Identifier"	Frequencies (MHz)
1	IMT Core Band	1920-1980/2110-2170
2	PCS 1900	1850-1910/1930-1990
3	GSM 1800	1710-1785/1805-1880
4	AWS (US & other)	1710-1755/2110-2155
5	850	824-849/869-894
6	850 (Japan)	830-840/875-885
7	IMT Extension	2500-2570/2620-2690
8	GSM 900	880-915/925-960
9	1700 (Japan)	1750-1785/1845-1880
10	3G Americas	1710-1770/2110-2170
11	UMTS1500	1428-1453/1476-1501
12	US 700	698-716/728-746
13		777-787/746-756
14		788-798/758-768
17		704-716/734-746

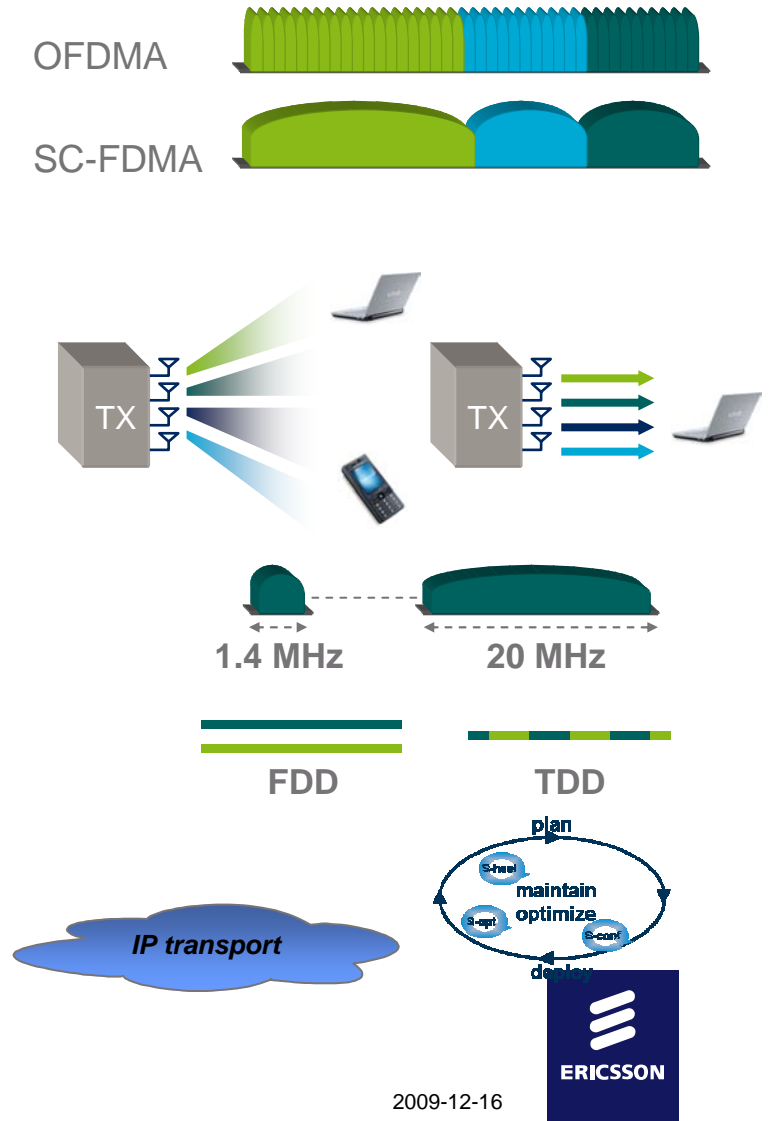
TDD		
Band	"Identifier"	Frequencies (MHz)
33,34	TDD 2000	1900-1920 2010-2025
35,36	TDD 1900	1850-1910 1930-1990
37	PCS Center Gap	(1915) 1910-1930
38	IMT Extension Center Gap	2570-2620
39	China TDD	1880-1920
40	2.3 TDD	2300-2400

LTE deployed in new and existing bands

LTE KEY FEATURES

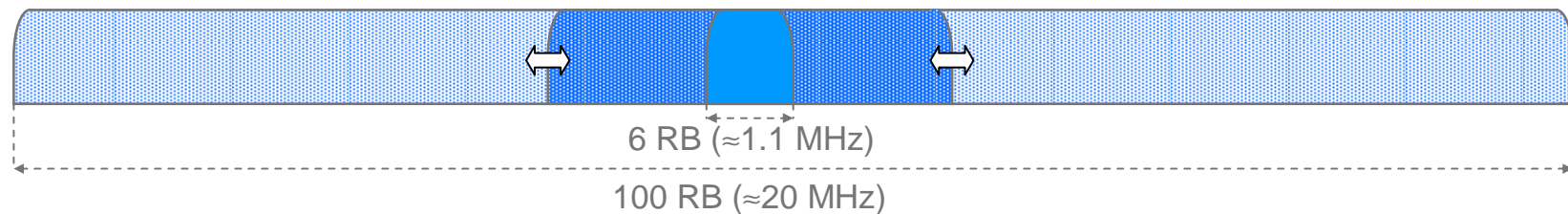
OVERVIEW

- › **Downlink: Adaptive OFDM**
 - Channel-dependent scheduling and link adaptation in time and frequency domain
- › **Uplink: SC-FDMA with dynamic band width**
 - Low PAPR ➔ Higher power efficiency
 - Reduced uplink interference (enables intra-cell orthogonality)
- › **Multi-Antennas, both BS and terminal**
 - MIMO, antenna beams, TX- and RX diversity, interference rejection
 - High bit rates and high capacity
- › **Harmonized FDD and TDD concept**
 - Maximum commonality between FDD and TDD
- › **Simplicity**
 - All IP, SON



BANDWIDTH FLEXIBILITY

- › LTE physical-layer specification supports any bandwidth in the range 6 RBs to 100 RBs in steps of one RB (1 RB=12×15 kHz)



Channel bandwidth BW_{Channel} [MHz]	1.4	3	5	10	15	20
Transmission bandwidth configuration N_{RB}	6	15	25	50	75	100

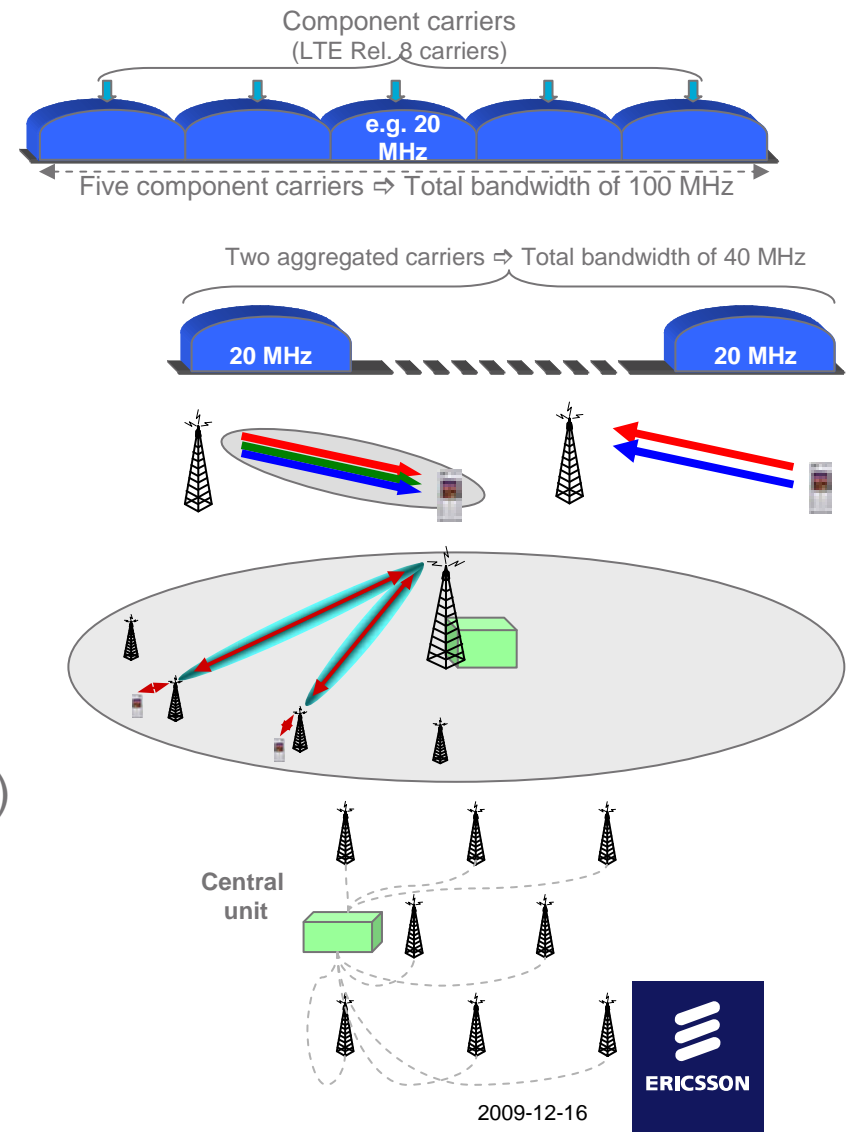
DATA RATES FOR FDD

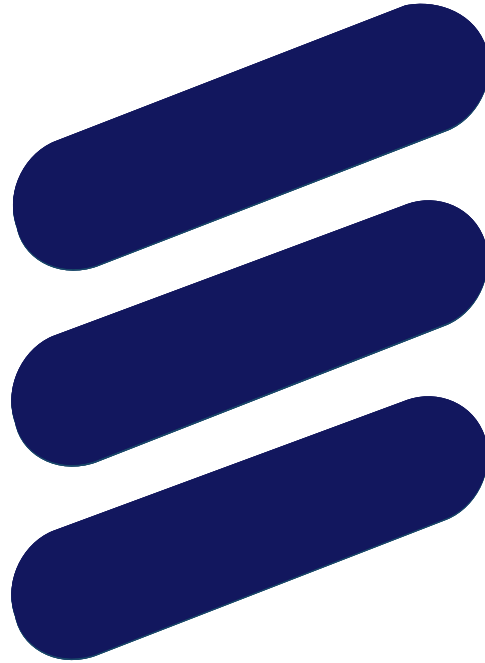
Channel bandwidth BW_{Channel} [MHz]	1.4	3	5	10	15	20
Peak Data rate DL (Mbps)	9	25	43	86	129	172
Peak Data rate UL (Mbps) 16QAM/64QAM	2.3/4	7.1/11	13/20	27/42	42/63	56/84

LTE ADVANCED (REL-10)

TECHNOLOGY COMPONENTS (PROPOSED/ STUDY)

- › Carrier aggregation for wider bandwidth
 - Up to 100 MHz
- › Spectrum aggregation
 - Complement to wider contiguous spectrum
- › Extended multi-antenna transmission
 - Uplink spatial multiplexing
 - Combined spatial multiplexing + beamforming
 - Downlink extended spatial multiplex
- › Relay functionality
- › Self-optimized/configured networks
- › COordinated MultiPoint transmission (COMP)





ERICSSON

